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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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07/402,450

09/01/1989

GEORGE J. MURAKAWA

2124-154

8131

6449

7590

03/17/2008

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SUITE 800

WASHINGTON, DC 20005

EXAMINER

CHUNDURU, SURYAPRABHA

ART UNIT

PAPER NUMBER

1637

NOTIFICATION DATE

DELIVERY MODE

03/17/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTO-PAT-Email@rfem.com

Office Action Summary	Application No. 07/402,450	Applicant(s) MURAKAWA ET AL.	
	Examiner Suryaprabha Chunduru	Art Unit 1637	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 114-151 and 190-248 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 114-151 and 190-248 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicants' response to the office action filed on December 11, 2007 has been considered and acknowledged.

Priority

2. This application filed on 9/01/89 is a CIP of 07/355, 296 filed on 5/22/1989, and is a CIP of 07/143, 045 filed on 01/12/1988 filed, which is a CIP of 07/148,959 filed on 1/27/1988.

A careful review of the priority applications revealed support for amplifying reference and target RNA sequences using different oligonucleotide primers either simultaneous or in separate amplification reactions. Thus the limitation 'amplified by the same oligonucleotides' does not have support in the prior applications and the instant application does not get the claimed priority to any of the prior applications.

Status of the application

3. Claims 114-151, 190-248 are pending. Claims 1-113 are canceled. All the arguments and the amendment were fully considered and found persuasive in-part. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 114-248 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The instant independent claim 114, 130, 138,146,150, 190, 199, 208, 217, 226, 229, 232 recite 'the reference sequence consists of the selected target viral RNA sequence with a

multibase insert into a site within the selected target viral RNA sequence; wherein the reference RNA sequence and the selected target viral sequence are of similar length'. The meets and bounds of the claim are unclear and indefinite because it is not clear how the reference sequence and the target viral RNA sequence be of similar length, because the limitation prior to wherein clause, recites that the reference sequence consists of the selected target viral RNA sequence in addition to a multibase insert, which clearly indicates that the reference RNA sequence is longer than the target viral RNA, since the reference RNA sequence has additional multibase sequence inserted into the target viral RNA sequence.

Response to arguments:

5. With regard to the arguments on the priority issue, Applicants arguments are found persuasive in-part. As discussed above, the use of same primers to amplify both reference and the target RNA does not have support in the earlier applications and thus the instant claims do not get the priority to the earlier filed applications.

6. With regard to the rejection of claims 114-115, 117-118, 120, 122-123, 125-126, 128, 130-131, 133-134, 136, 138, 141-142, 144, 146-151, 190-192, 194-195, 197, 199-201, 203-204, 206, 208-210, 212-213, 215, 217-219, 221-222, 224, and 226-248 under 35 USC 135(b) as being anticipated by Wang et al., Applicants' arguments and the amendment were fully considered and found unpersuasive. Applicants argue that the claims as presented do not require the use of a shared primer pair and thus Wang et al. is not a prior art. Applicants also assert that Examiner incorrectly analyzed the BPAI decision on the Wang preliminary motion 1 and assert that the BPAI concludes that that the earlier claims did not require or necessarily result in the use of shared primer pair, although it could encompass a shared primer pair and the language did not

provide basis for requiring or necessarily resulting in the use of a shared primer pair. Applicants further argue that the instant amended claims as presented now are not directed to the same subject matter since the claims as presented now recite the use of the same primers as well as the use of different primers and as held by the BPAI, the claimed subject matter does not require the use of the same primers and therefore the Wang reference is not a prior art and the rejection should be withdrawn.

Applicants' arguments are found unpersuasive. First, the instant amended claims recite 'can be amplified by the same primers or by the different primers', which satisfy the requirements of the Wang et al. reference and forms basis for the rejection, since the amendment uses alternative form of the language "or", thus the rejection is still applicable and Wang et al. reference stands a prior art. Second, the instant claims recite 'can be amplified' which means that the same primers can be used or different primers can be used, which also refers to 'optional' language and supports the BPAI conclusion that the language did not provide basis for requiring or necessarily resulting in the use of a shared primer pair and the claims do not require either of the primers alone or in combination (both together) as asserted by the applicants. Thus the claims as presented now still encompass the same subject matter as in Wang et al. reference and the rejection is maintained herein.

7. With regard to the rejection of claims 116, 119, 121, 124, 127, 129, 132, 135, 139, 140, 143, 145, 193, 196, 198, 202, 205, 207, 211, 214, 220, 223 and 225 under 35 USC 135(b) over Wang et al. in view of Mullis et al., Applicants' arguments and the amendment were fully considered and found unpersuasive. Applicants argue that the claims as presented now are not directed to the same subject matter as of Wang et al. and Wang et al. reference is not a prior art and the rejection

should be withdrawn. As discussed above the claims as presented now still encompass the same subject matter and the claims are obvious over Wang et al. in view of Mullis et al. as discussed in the rejection and thus the rejection is maintained herein.

Conclusion

No claims are allowable.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Suryaprabha Chunduru whose telephone number is 571-272-0783. The examiner can normally be reached on 8.30A.M. - 4.30P.M, Mon - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Benzion can be reached on 571-272-0782. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Suryaprabha Chunduru/

Primary Examiner, Art Unit 1637

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